

ORNITHOLOGICAL LITERATURE

BIRDS OF PREY OF THE WORLD. By Mary Louise Grossman and John Hamlet. Clarkson N. Potter, Inc., New York, 1964: $9\frac{1}{2} \times 12\frac{3}{4}$ in., 496 pp., 70 col. photos. by Shelly Grossman, many other illus. \$25.00.

The birds of prey are among the most awesome, superb, and misunderstood creatures of nature, and nearly all students of birds count them among their most esteemed objects of study. I have often been impressed by the large number of ornithologists—amateur and professional alike—who name the Peregrine Falcon as their favorite bird, a sad commentary in this day of its rapid disappearance in the more polluted parts of the world. Indeed, as this book by Grossman and Hamlet documents very well, man's emotional, intellectual, artistic, and recreational involvement with the birds of prey pervades all cultures and undoubtedly had its origin in the remote ancestry of the human intellect.

This large, sumptuous volume, which attempts to cover every living species of Falconiformes and Strigiformes, is well designed to excite the interest and acquisitiveness of all devotees of the raptors. One reads on the jacket that: "This is the most complete, authoritative and exciting book ever produced on the world's most dramatic birds—the two orders of raptors, the hawklike birds and the owls . . . This work, of vast scope, contains 70 full-color photographs illustrating 45 species of birds, and 283 photographs in duotone. In addition, there are 425 range maps of the individual species, 646 flight silhouettes of the hawklike birds, and several other special features, including line drawings of species never before figured, and a unique color chart which is the key to the color names used in all descriptions of the birds."

Such a comprehensive treatment has been needed for a long time. Unfortunately, this 25-dollar book sometimes gives the impression of having been put together more for the enrichment of the authors and publisher than for the edification of its readers.

Judged by the old Chinese criterion, the illustrations in this lavishly pictorial volume should be worth more than a million and a half works—seemingly a rare value at the price—but I question how many of the thousand words evoked by the color photograph of a disheveled and awkwardly posed Lesser Kestrel (opposite p. 64) add up to esthetic or intellectual satisfaction for the viewer. I wonder even more about the thousand words called forth by the same picture printed in reverse in black and white on page 403. This egregious sort of duplication occurs all too often in the book and undoubtedly added considerably to the cost of publication.

Most of the photographs, by Shelly Grossman, are of captive birds—either caged specimens in zoo collections or individuals kept tethered to outdoor perches at John Hamlet's former exhibition of living raptors near Ocala, Florida, where at one time he had assembled more than a hundred species. Although these photographs are executed with a fair degree of technical skill, the esthetic quality of many of the pictures is marred by the appearance of broken wing and tail feathers, overgrown beaks and talons, and scarred ceres and tarsi, defects all too often associated with raptors kept in captivity. Even when the birds are in good physical condition, they often appear unkempt and unnaturally awkward—almost stuffed—because they were evidently still rather wild when handled and were not permitted to relax and shake out their feathers before being photographed. Typical examples are the Lesser Kestrel referred to above, the Plumbeous Kite opposite page 161, and the Screech Owls opposite page 182.

The head and shoulder portraits are by far the best efforts among the color plates. Some are really outstanding representations of bird photography, such as the African

White-headed Vulture (following p. 112), the Barn Owl (following p. 144), the King Vulture (following p. 160), and the Pondicherry Vulture (preceding p. 183). A discriminating publisher might well have restricted the costly, full-page color plates to include only these portraits of high quality.

Incidentally, some of the best black-and-white photographs were taken by Eric Hosking and Heinz Meng.

For the most part, the "action shots" are highly informative, and entirely appropriate advantage has been taken of the opportunity to use Hamlet's trained birds for many of these pictures. Each shows some functional aspect of birds in general or of raptors in particular, as for instance, in the excellent sequences depicting a Red-tailed Hawk taking off from a perch, flying, and attacking a pheasant, and the African Brown Harrier-Eagle attacking, killing, and eating a snake. But some of the pictures showing acts of predation border on the bizarre and depict events barely possible in nature; for instance, the series on a Great Horned Owl attacking an oversized snake, the Red-tailed Hawk attacking and killing a full-grown opossum, and the American Kestrel attacking a wood-rat. More typical quarries could have been used with equally dramatic effects.

At best, the birds of prey are difficult subjects for portrayal by camera or by brush and paint. The only two bird artists ever to achieve real success with the falconiforms, in my opinion, were Louis Agassiz Fuertes and George E. Lodge. The now classic photograph by Arthur A. Allen of the old Peregrine Falcon at Taughannock Falls represents the height which can be reached with the camera. With a few exceptions, the illustrations in this book fall far short of the standards set by these predecessors.

The text is divided into two parts. The first section consists of five chapters entitled. Prehistory, Birds of Prey and Men, Ecology and Habits, Designs for Survival, and Conservation. The level of presentation and general quality of these chapters range from elementary and sophomoric (ecology and habits) to sophisticated and scholarly (birds of prey and men). The chapter on prehistory briefly summarizes what is known about the evolution of birds, with special attention given to fossil representatives of the Falconiformes and Strigiformes. Chapter 2 on the relations between raptors and man is excellent. Man's superstitious, religious, artistic, literary, recreational, and nationalistic preoccupations with raptors are surveyed from earliest history to modern times and from primitive cultures through advanced civilizations. The photographic copies of various art objects, paintings, artifacts, and coins depicting birds of prey complement the text of this chapter in a most effective and informative way. The chapter on ecology and habits is rather disappointing, because of its oversimplified and uncritical generalizations. The adaptive specializations of raptors for predatory modes of existence are described in simple but interesting language in the chapter on designs for survival. The final chapter on conservation is timely—including a presentation of the current problem of pesticide effects on raptors such as the Bald Eagle, Golden Eagle, Osprey, and Peregrine Falcon—in good taste, and to the point.

The second half of the book takes up a systematic treatment of 289 species of Falconiformes and 133 species of Strigiformes. Each genus is described in non-technical language, and at least one representative of each is depicted either by a black-and-white photograph or by a linedrawing by Jo McManus. The latter were drawn from museum specimens and bear little resemblance to lifelike forms. In addition, there is usually a short description of each species within a genus, and in the case of the falconiforms there are one or more small flight silhouettes of each species. The utility of this type of illustration for field books on identification is indisputable, but silhouettes add little

of value to a book of this scope. Moreover, many of them are badly proportioned and show little similarity to the silhouettes of living birds in flight.

There is also a distribution map for each species, showing the "approximate breeding range." The reader is left uninformed, however, about the sources of information used in mapping breeding ranges, and consequently there is no way to judge their accuracy. Some of those with which I am personally familiar, like that of the Gyrfalcon in Alaska, are not correctly indicated. A section on "habits" under each genus summarizes salient details about the life histories of the included species.

The list of acknowledgments indicates that the manuscript for the book must have been subjected to the scrutiny of a rather formidable array of consultants, and consequently there are relatively few gross errors of fact. Some misstatements which caught my attention follow. Being the westernmost representatives of the Pueblo group, the Hopi Indians referred to on page 45 live in Arizona not, as stated, in New Mexico. On page 122, Niko Tinbergen is given credit for the classic Dutch work on predation by the European Sparrowhawk, whereas it was actually done by L. Tinbergen; nor is the reference cited in the bibliography. The gist of R. W. Storer's hypothesis to explain sexual dimorphism in size among falconiforms involves intraspecific rather than interspecific competition, as stated on page 239. On page 270, the upper silhouette of *Buteo lagopus* represents the immature plumage and not the "common phase" of the adult as stated in the caption. Two pounds is given as the approximate weight of the Gyrfalcon on page 388, but in fact females typically weigh more than 3 pounds, and some individuals exceed 4.

By and large this book is a sympathetic attempt to portray the birds of prey of the world in ecological perspective. One encounters few of the grotesque or sensational statements so often associated with "popular" accounts of these birds. The only blatant one which I came across is on page 134 where one reads in a section on the Great Horned Owl that "Forest Service personnel wearing muskrat hats are in peril of being attacked, and in one or two instances a ranger has been blinded or killed by the sharp and deeply penetrating talons of *Bubo*." Surely such a statement demands the most scrupulous documentation before it is included in a book which is bound to be widely accepted and quoted as authoritative.

The most serious reservation I have about this book relates to the authors' extreme laxity in citing the sources of their information. Although it would perhaps be difficult to draw a sharp distinction between creative scholarship and plagiarism in an ostensibly popular treatment of a body of scientific knowledge, the authors of this book have certainly shown too casual a regard for acknowledging the work of others. It is not enough to say in the introduction that thousands of references have been consulted. At the least, the authors should have included in their bibliography all references from which they took specific, substantive information. Not only is this the minimum demand of ethics and courtesy among scholars, it is also a definite aid to the interested reader who may wish to pursue the subject to its original source. For instance, on page 257 one reads in connection with nest-building that, "The Gabar Goshawk transports spiders along with their webs, and the spiders continue to weave gossamer around the small structure of sticks and twigs." Now, that is a most interesting piece of information, and any curious reader might wish to know the original source. On page 13, the reader is told that, "If a reference cannot be traced to one of the standard bird guides, it may be found in an article or manuscript under the scientific name (Latinized binomial) of the species." Aside from the obvious inconvenience of having to search through all possibly pertinent references listed, the real catch is in the words "may be." It may be

found, but it also may not be found at all. The authors say (p. 13) that they "have supplied as complete a Bibliography on the birds of prey as possible," and yet there are numerous cases in which they failed to include references from which they obtained information. Since the bibliography contains only about 450 citations, the potentialities inherent in the existing literature on raptors were not even broached. I am tempted to ask how many pages of bibliography could have been published for the cost of the eight unnecessary color plates of the Horned Owl following page 31.

Again on page 13 the authors "caution the reader that, in a broad synthesis such as this, footnotes, and with few exceptions, in-text references must be sacrificed to continuity." In any work which summarizes technical literature, the continuity which may be lost by proper citation is more than compensated by the increased confidence instilled in the critical reader when he knows the sources which have been used.

Still needed in the subject area covered by this book is an authoritative review of the families, genera, and species of Falconiformes, presented within the scope of modern phylogenetic principles, with an up-to-date technical diagnosis of each taxon and a discussion of the presently accepted limits of each, and a well-documented summary of the known biology of each species. The authors and publisher of such a book might well consider including only those illustrations which have utility in imparting information about functional and comparative morphology, phylogeny, habitat, behavior, or other pertinent biological details, instead of decorating their pages with "pretty pictures of birds" and incidentally doubling or tripling the cost of publication.—TOM J. CADE.

THE WATERFOWL OF THE WORLD. Volume Four. By Jean Delacour, with contributions by Hildegard Howard, Milton W. Weller, Philip S. Humphrey, and George A. Clark, Jr. Country Life Limited, London, 1964: 8 × 10 in., 364 pp., 6 col. pls. by Peter Scott, figs., maps. 6 guineas.

When publication of this series began in 1954, the author anticipated that the full set would consist of three volumes, and he stated in his introduction to the first volume: "A general account of the family *Anatidae* will be given at the end of the last volume. It will include chapters on morphological, anatomical, and biological characters; on history, sport, conservation, acclimatization, care and breeding, and a bibliography." It became apparent as the project progressed that the species accounts would fill the originally proposed three volumes, and that a fourth, supplemental volume would be needed for the "general account of the family." Reviewers who were disappointed at the superficiality of treatment of some aspects of the waterfowl in the first three volumes had to hedge their statements, as nobody knew just what the fourth volume would be like. It has now appeared, and, as we had hoped, greatly augments the usefulness of the work as a whole.

Although few living ornithologists share Delacour's familiarity with waterfowl in general, his interest in and knowledge of the group have nevertheless been somewhat specialized. Reviewers of the first three volumes commented on the emphasis (considered undue by some) on aviculture, and Delacour has also paid much attention to taxonomy, especially at the generic and higher levels. For the fourth volume of his work, he called upon a group of specialists to write chapters supplementing his own on aviculture, domestic waterfowl, and additions and corrections to the first three volumes. The first six chapters were written by Milton W. Weller; these are entitled General Habits, The Reproductive Cycle, Ecology, Distribution and Species Relationships, Fowling, and Conservation and Management. Philip S. Humphrey and George A. Clark, Jr. contributed